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ABSTRACT

This paper on longitudinal/intervention research is divided into a discussion of the problems of this strategy and a working paper. Many of the problems are practical ones, concerning the uncertain trends of funding and the drifting of goals and priorities; all of the methodological problems and inadequacies of longitudinal research and intervention evaluation are considered, as well as some new and unique problems. These include (1) variation in schedules of intervention (periodic or continuous), (2) same intervention over time or different sequences, (3) comprehensive or specific intervention, (4) latent effects of programs, (5) problems in determining predictors of performance and in identifying the precursors of present performance, and (6) the interpretation of changes over time after termination of intervention. The second part of this document is a working paper prepared from interviews with agencies belonging to the Interagency Panel. The content of the interviews emphasizes the choice of research strategies and methods of implementing cooperative programs of longitudinal/intervention research. Results are discussed in general terms, although responses of individual agencies are reported in an appendix. (DP)

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A STATEMENT AND WORKING PAPER

ON LONGITUDINAL/INTERVENTION RESEARCH

Prepared for

The Interagency Panel on

Early Childhood Research and Development

by

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A - Working Paper, Summary of each Agency Interview

B - Interagency Panel Materials Prepared to Assist in Planning a Joint Research Effort

I Problems Encountered in Longitudinal/Intervention Research

A new thrust in research in early childhood development focuses on longitudinal/intervention studies. Research results, particularly since the massive social legislation of the mid '60's, consistently point out the problems of short-term intervention activities where the positive impact of the short-term intervention is generally lost over time. These problems have caused agencies to re-examine some of their research activities to determine if there are more effective ways to study the problems of intervention. One way selected is the longitudinal/intervention approach.

The Interagency Panel on Early Childhood Research and Development is engaged in formulating some ways to address the longitudinal/intervention problems. It has selected two major approaches. One is to look at on-going longitudinal research in terms of how it might be used as a base for adding interventions, shifting intervention studies to a longitudinal design or making use of already on-going or planned longitudinal/intervention studies. The second approach is to begin de novo with a longitudinal/intervention design.

Initial efforts to look at longitudinal/intervention research on an interagency basis, building on what already exists, comprise the latter portion of this document. However, it is important, first, to highlight the problems peculiar to longitudinal/intervention research. Many of these problems are of a practical nature. These include the following facts about longitudinal/intervention research:

1. It is expensive.
2. Money is tied to goals of the incumbent Administration which change and affect allocation of research dollars.

3. Money is tied to goals of the agency. Agency goals shift to reflect goals and priorities of the Administration and of the Congress.

4. The Administration, Congress and agency heads like to see immediate and tangible results of investment of research dollars - they do not understand the "nature" of longitudinal research.

5. Program managers or project officers sometimes have favorite research areas or researchers which can tie up money.

6. Large turnover of program administrators and managers, especially now in Federal agencies, interrupts continuity.

7. Investigators themselves lose interest after a few years and have often received little recognition for work in longitudinal research.

8. The above means projects may break up before yields are in, that feasibility and usefulness in actual situations are not adequately demonstrated.

Other problems concern longitudinal research per se, some concern intervention research and some concern the combination of longitudinal/intervention research. This section will deal with each of these problem areas.

Problems in Longitudinal Research

The major value of longitudinal research in child development is the information provided which reflects changes in behavior over time. In other words, changes in each subject may be identified in a descriptive manner without necessarily attempting to state cause-effect relationships; rather the sequential relationships of child development may be described. The research technique generally used for this kind of descriptive longitudinal research is observation. Longitudinal studies, so defined may include normal or handicapped children, may include children from different ethnic groups, different regions, and different socioeconomic groups. The same goal for the longitudinal studies cuts

across the populations; i.e. the description of developmental change over time. No experimental interventions are studied in this kind of research.

Long term studies which follow the development of children over many years must deal with a number of difficulties, however, not the least of which is continued stable funding. Among these difficulties are:

1. Research design

   Research design may well be too limited in that the focus is restricted to the physical or psychological development of children, ignoring their socialization development. Often, too, it is easier to describe the development of the child as though he were not an interacting creature. Thus the relationships and interactions with persons and objects are often ignored. Then, over time, there is a shift in interest or focus of development. For example, much more emphasis is currently placed on exploratory behavior and motivation than was true ten years ago. Longitudinal studies might well become outdated as new interests or indeed new knowledge suggests changes in research design.

2. Sample problems

   Size of sample:

   Because of the amount of data collected on children as well as the funding, samples have generally been too small to allow for much generalization.

   Representativeness of sample:

   Long term studies have rarely been able to obtain representative

samples in spite of efforts to overcome this limitation. For the most part, data from longitudinal studies are on white middle class children whose parents are interested enough in the research project to continue to take part in the program, and who live close to a major university or research center.

Attrition of the sample:

Shrinkage of already small samples occurs over time because of a loss of rapport between the researchers and the family, or because of mobility (one American family in five moves every year).

3. The effects of continued observation and testing

Effects in long term studies include Observer effects, the Hawthorne effect, and an increasing awareness and greater capacity among Subjects to observe and report. As years go by, the sample may become increasingly different from a control group primarily because of participation in the research situation.

4. Continuity of staffing

Commitment:

For a principal investigator to commit himself to life-span observations necessitates an on-going dedication to one particular area of research, and the likelihood that the investigator will not live to report on the final stages of the investigation.

Continuity:

If the principal investigator leaves the project, there may be a shift of focus or interest when a new principal investigator takes over. It is also difficult to keep staff at other levels

for very long studies. This raises problems of observer and/or tester differences.

5. Testing procedures

Testing schedules:

Every longitudinal study must face the dilemma of choice between fixed and flexible procedures over a span of years. On fixed schedules, children are ill or on vacation and cannot be observed as scheduled.

Instrument revision:

As years pass, measurements and evaluation instruments are revised or new instruments developed. A choice must be made between continuing with the instrument initially used, or shifting to improved or new measures.

6. Data processing

The mass of data collected always presents problems in data processing, and decisions must be made as to what to process. Improved data processing methods over the years as well as new statistical procedures present both new opportunities and new dilemmas.

7. Environmental changes

Subjects in longitudinal studies are influenced by both national and local changes in the environment. Major events such as war and depression may exert both unmeasured or unmeasurable influences. Shifts in cultural mores, social attitudes and values may do the same. Of even more significance, local environmental changes may affect the test sample in such a way that they may differ greatly from a similar sample in the larger population. Great local

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disasters such as earthquakes and floods, as well as high local unemployment, are examples of such environmental changes.

Problems in Intervention Research

The major value of intervention research is to effect change where the change agent or treatment is identified and controlled. This kind of research provides information helpful in enhancing the development of children, correcting defects in that development, or indeed preventing defects. A number of problems, however, prevail in intervention research. These are described below.

1. Interpretation of gains or losses on test performance

Test motivation:

The changes in scores on tests may be the result of familiarity with the test situation, rapport between the child and the examiner, the willingness to try certain items in the test, and the importance placed on good test performances rather than changes in ability as a result of intervention.

Test biases:

Tests tend to operate on the continued assumption that children have been exposed to the same general experiences. This assumption mitigates against children from other than main-stream American middle class families and test scores are accordingly affected.

Regression phenomena:

Test scores above the mean on pre-test administration tend to lie closer to the mean on post-test administration. Likewise, test scores below the mean on pre-test administration tend to

be closer to the mean on post-test administration. The effect is to indicate a loss or improvement by the initial high or low scores when in fact a statistical and measurement artifact is operating.

2. Methodological problems

Sampling:

Intervention studies using large population samples have difficulty establishing the parameters of the intervention components as well as difficulty establishing control groups.

Age of intervention:

Differences in kinds of intervention and measurements of effects of intervention vary with age. Thus, tests for children between the ages of 18 and 36 months of age have more sensory and motor items while tests for children 3 to 6 have more language items. The intervention program may or may not reflect this shift in emphasis and test scores are accordingly affected.

Length of intervention:

Problems confounding the determination of the effect of time in an intervention program include the tendency to make initially rapid gains with a slowing of the rate of increase, and for children from low-income families and poorer schools, the cumulative deficit phenomenon. Maintaining a level of performance may indeed be progress to the extent it breaks the cumulative deficit.

Individual and group differences:

Intervention programs tend to deal with group means rather than analyzing data to determine effects based on sex, ethnicity,

culture, religion and race.

Kind of intervention:

Intervention effects may be misleading to the extent the intervention program is geared to the tests determining effects of intervention. The more structured the program, the more the goals are objectively expressed, the more they are consistent with test items, the greater the apparent impact of the intervention program. Programs that encourage exploratory behavior of children, stimulate creativity and self-expression are more difficult to quantify and therefore evaluate by use of standardized measures. The result is that structured programs may well be overvalued as effective while less structured programs are undervalued.

Evaluation of intervention:

Evaluations tend to assess how much change occurs as a result of program intervention rather than what kinds of changes occur. As soon as programs address themselves to what kinds of changes are desirable, they face the problems of determining what skills or learning styles are important to later development. Further, they are faced with the problem of establishing program goals and assigning priorities among them. These things have not been done with any general agreement or satisfaction.

Sources of effects other than interventions:

Intervention programs tend to be assessed independent of family, physical, and community settings. The fallaciousness of this procedure is made clear in a few studies; for example,

the language usage of mothers with their children was proved to be a more forceful determinant of the children's achievement behavior than income level or program intervention. Programs have generally not looked at the broader societal contex for sources of effects on child development.

Problems in Longitudinal/Intervention Research

All the problems of both longitudinal research and intervention research exist in longitudinal/intervention research; however, some new problems unique to longitudinal/intervention studies need to be highlighted.

1. Continuous intervention or periodic intervention.

No one has looked at the relative value of providing intervention programs on a continuous basis over time compared to determining at what times and in what forms intervention should occur. The problems of maintaining contact with and deriving information on experiences of groups receiving periodic intervention, between the intervention phases, complicates the research difficulties.

2. Same intervention over time or different sequences of intervention.

Is it possible in mobile and uncontrolled social and educational systems to keep a child in the same intervention program over time or to determine what sequence is most beneficial to him when there is no assurance he will be able to remain in the program or the sequence? Some available data suggest the benefits and disadvantages of certain sequences and certain programs but the problems of stability of population and programs persist.

3. Comprehensive intervention over time or specific intervention.

The problem of cost-benefit is prominent in determining the relative advantages and effects of total intervention on a comprehensive scale or specific intervention on targets of diagnosed need or assumed need. Another problem related to this concerns the advantages of comprehensive or specific intervention for different age groups in different population groups.

4. Latent effects

Occassionally an effect sought from an intervention does not demonstrate itself until a considerable period of time after the intervention. Short-term effects of intervention, then, may be as misleading as long-term effects. Ways to solve these problems in terms of research strategy do not yet exist.

5. Predictors and precursors

Not only are there problems in determining the predictors of recent performance to future performance, but there are also problems in identifying the precursors to present performance. Longitudinal/intervention research needs this kind of information to be meaningful.

6. Interpretation of changes over time after terminating intervention.

The problem persists in knowing how to explain the measured losses or gains after intervention has terminated. Some explanations include: (a) the intervention had no real effect on the child but only an illusory and temporary one showing up on tests; (b) the subsequent experiences may reinforce or indeed contravene the interventions; (c) the home experiences may reinforce or contravene the intervention; (d) the intervention was not intensive enough nor of

long enough duration; (e) the intervention changed the wrong things; and (f) the peer group in the classroom or the teacher in the classroom reinforced or contravened the effects of the intervention.

Even recognizing all of these problems peculiar to longitudinal/intervention research, such research is imperative and the problems must be resolved. The Interagency Panel on Early Childhood Research and Development has examined past, current and planned research of the member agencies, and suggests a possible coordinated effort in longitudinal-intervention research. The possibility of designing longitudinal/intervencion research separate from agencies or current activities is still available as a choice. The Panel may address itself to that choice as considered desirable.

II Working Paper Prepared From Agency Interviews Relating to Longitudinal/Intervention Research

In order to obtain additional information with which to proceed with the planning of a joint early childhood research effort, the members of the Interagency Panel on Early Childhood Research and Development were interviewed following the last Panel meeting. With regard to the question as to whether the better procedure for the planning of a coordinated research model is to start with already funded research, or with a new design, the consensus was that an approach combining the two procedures is needed. That is, a new design should be developed which draws upon the results of past and ongoing research and is related to or coordinated with ongoing studies whenever possible. New work should be contracted out for particular pieces of research only when the plan indicates there is a need for new efforts. Thus, most of the questions listed in the Working Paper (Dr. Grotberg, 2/28/72) relate to this conceptualization and were included in the interviews. These appear translated into statements on the next page.

The time limits of the interviews prohibited obtaining detailed answers in all areas from all individuals. This is true particularly for items four and five, on the next page, for which examples only of significant cases were given. However, more detail on these and other items can be obtained in later planning stages as deemed necessary. Thus, the information from each agency which follows should be considered as indicating only some of the possibilities for a joint research effort and not as complete and final. Each agency will be provided opportunity to change or expand any item and the paper will not be distributed to other than Panel members. It is a Working Paper prepared for Panel use.

Summaries of the information sought and the replies are given below. The responses of individual agencies to the questions are contained in Appendix A. A list of titles of other materials prepared by the Secretariat to assist in the planning of a joint longitudinal/intervention research effort appears in Appendix B.

Summary of Content Sought in Agency Interviews

1. The other agencies it is appropriate for any one agency to work with; kinds of help needed from other agencies.

2. Links in agency research that could be made with basic (or applied) research.

3. Research areas of most concern in the agency which may be suited to study in a joint project. (Includes gaps.)

4. Present projects of the agency which might be useful in organizing a coordinated longitudinal/intervention study.

5. The agency data presently available that could be useful for planning longitudinal/intervention research.

6. Possible methods for synthesizing the various agency inputs into a viable longitudinal/intervention research design (conceptualization and planning.)

7. The kind of structure that might be set up to launch and/or maintain an interagency longitudinal/intervention study.

8. The contribution an agency might make to an longitudinal/intervention research design in terms of agency strengths, interests, and priorities.

9. Suggestions regarding instrumentation for assessment.

10. Funding procedures for joint longitudinal funding.

11. The problems involved in conducting longitudinal research. (Included in preceding section on Problems.)

Summary of Agency Responses to Interview Questions

General

a. Longitudinal research is necessary in order to obtain understanding of the developmental processes in children.

b. Development of effective interventions must be a long-term process which synthesizes finding about all the aspects of child development and what influences it.

c. A possible design for the joint effort was conceived as related to the development of the child over time, including basic research findings and going through the implementation phase: a joint longitudinal research effort should include data from basic research, demographic studies and policy research, as well as the development, testing and implementation of the intervention.

d. It was suggested the overall design should consist of individual components or segments of ongoing and new work, and indicate which agencies are the most appropriate to fund the various segments.

e. Specific agencies (BEH, NICHD, NIMH) would like a broad joint effort to include study of the physical and mental health of the disturbed, retarded and otherwise handicapped children.

1. Other Agencies

Three agencies OASPE, OCD and OE (through its component agencies) have theoretical linkages with all other agencies. The OE bureaus and programs are linked together by a concern with the education of children. The other alignments occur along health and welfare groupings, i.e., NIMH, NICHD, MCHS and BEH, or through the disadvantaged population. Literally all of the agencies have research focused on the disadvantaged with several agenceis including such research as a primary part of the research program, i.e., OEO, OCD, SRS, Follow Through.

2. Basic/Applied

Much of the basic research has a practical aspect; the applied research can serve as a testing ground for basic findings.

3. Areas of Interest

Each of the developmental processes and the interrelationships of the developmental processes; the whole child. The effects of the total milieu of home, family, school, peers, institutions, etc. Specific agencies other than the former that were mentioned by more than one agency are the disadvantaged child, the handicapped child, nutrition, delivery systems, teenage parents.

4. Sample Projects

This area needs to be developed by further examination of the project information contained in the various background papers prepared by the Secretariat, and updated with FY '72 data. Small group meetings of Panel members may also help select ongoing project which could become components of a joint agency effort.

5. Data

This section needs expansion also. Some of the examples given are of special significance, especially perhaps the willingness of Follow Through to make its entire evaluation data base available to the Panel free of charge.

6. Planning

a. Panel working in subgroups should discuss contributions they can make and then develop project objectives and guidelines.

b. Planning of the design and implementation of the project should be contracted out.

c. The project should begin with studies to determine what already-available information may be used (nonfederal as well as federal) and to summarize what interventions have been found to be effective in promoting child development.

d. The design should provide for cost-benefit analyses, development of instrumentation, field testing and replication phases. It should specify check points for reanalysis of needs and assessment of progress. Accountability procedures should be worked out.

e. The agencies responsible for each segment should be specified and all plans should be presented to the agency for approval.

f. The actual investigators should be brought into the planning at the appropriate time.

7. Structure

a. Each agency should be responsible for the administration of the segments of the joint effort for which it has accepted the responsibility and deal directly with the investigator, for initial data collection and monitoring of that segment.

b. Opinion on centralized administration for coordination and data integration ranged from having it located in one member agency, to having it carried out by a contractor, to having the Secretariat perform liaison functions.

c. Panel should receive periodic reports and review and monitor the overall effort. May want a Committee with rotating Panel membership for intermediate reviews at critical points.

8. Contributions

All agencies said that it was likely that contributions to a joint effort, either through contact with ongoing work in the agency or by the agency's contracting new work would be possible. One said rather than the latter arrangement his agency would prefer the total project be given to an outside contractor.

9. Instrumentation

Develop clinical assessment techniques, i.e., observations and interviewing. Use longitudinal cohorts of overlapping age groups to cover wide age range in shorter time period.

10. Funding

Review processes vary from agency to agency with perhaps the most stringent formal procedures found in NICHD and NIMH where a National Advisory Council must approve all grants for scientific merit. In OE agencies, while there are review procedures in most cases, and required Commissioner approval, staff members play a major role in project selection. The procedures range between these extremes in other agencies.

(The responses of individual agencies appear in Appendix A.)

Tentative Research Plans Suggested by Agency Interviews, Presented for Consideration by the Panel

A. Key Elements of Overall Planning and Evaluation

1. Statement of goals of the research effort, taking into consideration social trends, political priorities, research needs and agency objectives.

2. Selection of alternative interventions aimed at achieving the goals.

3. Conducting of feasibility studies to determine which alternatives are most promising.

4. Specification of check points for assessment, and description of reporting and monitoring procedures.

5. Designation of assessment instruments (including those which need development).

6. Description of a plan for implementation of successful interventions.

The above planning steps should be carried out by: (check one)

_____ one agency which is a Panel member
_____ the Panel
_____ Panel Committees
_____ a contractor with Panel acting as advisor and monitor
_____ other (name)

B. Procedure for Developing any one Longitudinal/Intervention Study

(The letters P,A,C,S stand for Panel, Agency, Contractor, Secretariat and are included so that Panel members may indicate their preferences for the group best suited to carry out each step of the procedures described below.)

P A C S 1. State objectives of the project or program, indicating the change in behavior expected in a particular population. (To be submitted for agency review and approval.)

P A C S 2. Describe proposed research population in terms of the objectives. (Use existing agency data whenever possible, for example, the Follow Through evaluation data or the OEO demographic data on the poor.)

P A C S 3. Examine agency research projects to discover pertinent completed and ongoing intervention research, or basic research related to interventions. Take into account planned research efforts. Summarize findings of completed research and objectives of ongoing research. (This task has been partially completed by the Secretariat staff.)

P A C S 4. Review research in the nonfederal sector to determine findings and ongoing and planned nonfederal programs which are relevant to the Panel project or its components.

P A C S 5. Combine information on Federal and nonfederal findings and efforts to summarize research gaps, taking into account both results and ongoing or planned research.

P A C S 6. Determine which agencies are best suited or prefer to conduct needed research in various areas as shown by the above analysis. Planning and providing for the support of additional new research may be necessary. (Submit for agency review and approval.)

P A C S 7. Design research projects or segments as determined by need and agency preferences. (May want to involve researchers themselves at this point.)

P A C S 8. Conduct research projects aimed at developing longitudinal/interventions to achieve stated goals, or aimed at discovering knowledge bearing on these interventions and objectives. Model development includes testing with the research population and revision until research objectives are met.

P A C S 9. Plan for replication of a longitudinal/intervention in other than the research setting to standardize it sufficiently for broader application with similar populations.

P A C S 10. Conduct replication studies and make necessary adjustments and revisions.

P A C S 11. Development of assessment instruments.

C. Procedure for Administration and Monitoring

P A C S 1. Administration of each component research project or segment.

P A C S 2. Collection of data from component project (direct contact with investigators) and the preparation of progress reports on each project.

P A C S 3. Site visits and monitoring of each project.

P A C S 4. Liaison, coordination of effort, exchange of information pertaining to component projects, between participating agencies.

P A C S 5. Collection via the sponsoring agency of information on component projects and integration of data.

P A C S 6. Preparation of progress reports containing integrated information from the component projects.

P A C S . Review of progress reports and other reports on the overall project for monitoring purposes on a periodic basis. (More than once a year.)

P A C S 8. Evaluation of the overall project on an annual basis.

TABLE I

Possible Groupings for Research Projects According to Present or Planned Agency Emphases
(From agency interviews and official statements of objectives)

Kinds of Intervention	NICHD	NIMH	MCHS	SRS	OCD	OEO	OE	OASPE
Comprehensive child care		X			X	X	X	X
Preschool education/ day care		X			X	X	X	
Elementary education							X	
Television		X			X		X	X
Family		X		X	X	X	X	
Parents	X	X	X		X	X	X	
Teenage parents			X	X	X		X	
Peers								
Paraprofessionals		X	X		X	X	X	
Community programs/ services	X	X		X		X	X	X
Advocacy		X			X		X	
Delivery systems			X	X			X	X
Institutions/ professions (not training)		X		X	X		X	
Health & nutrition	X	X	X	X				
Diagnosis and evaluation	X	X					X	
Medical/clinical treatment	X	X					BEH X	
Hereditary/genetic	X		X					
Assessment techniques and test development	X	X	X		X		X	

TABLE II

Agency Research Concerns by Kind of Population

Kinds of Children	NICHD	NIMH	MCHS	SRS	OCD	OEO	OE
Disadvantaged (poor)		X		X	X	X	X
Handicapped (physically, emotionally, intellectually, mentally handicapped)	X	X	X				X
Vulnerable (adopted, foster, neglected, abused or institutionalized)				X	X		
Normal	X	X					X
Fetus or neonate (Prenatal or perinatal)	X		X				

TABLE III

Agency Research Emphases in Early Childhood
by Kind of Intervention

1. Comprehensive child care: NIMH, OCD, OEO, OE, OASPE
2. Preschool education/day care: NIMH, OCD, OEO, OE
3. Elementary education: OE
4. Television: NIMH, OCD, OE, OASPE
5. Family: NIMH, SRS, OCD, OEO, OE
6. Parents (mother and/or father): NICHD, NIMH, MCHS, OCD, OEO, OE
7. Teenage parents: MCHS, SRS, OCD, OE
8. Peers: not indicated as a major concern in any agency
9. Paraprofessionals: NIMH, MCHS, OCD, OEO, OE
10. Community programs/services: NICHD, NIMH, SRS, OEO, OE, OASPE
11. Advocacy: NIMH, OCD, OE
12. Delivery systems: MCHS, SRS, OE, OASPE
13. Institutions/professions (not training): NIMH, SRS, OCD OE
14. Health and nutrition: NICHD, NIMH, MCHS, SRS
15. Diagnosis and evaluation: NICHD, NIMH, OE
16. Medical/clinical treatment: NICHD, NIMH, OE (BEH)
17. Hereditary/genetic: NICHD, MCHS
18. Assessment techniques and test development: NICHD, NIMH, MCHS, OCD, OE

TABLE IV

Agency Research Emphases in Early Childhood
by Kind of Population

1. Disadvantaged (poor) Children: NIMH, SRS, OCD, OEO, OE

2. Handicapped Children (physically, emotionally, intellectually, mentally handicapped): NICHD, NIMH, MCHS, OE

3. Vulnerable Children (adopted, foster, neglected, abused, institutionalized children): SRS, OCD

4. Normal Children (those who are not in the above categories): NICHD, NIMH, OE

5. Fetus or neonate (includes prenatal or perinatal) stages): NICHD, MCHS

APPENDIX A

WORKING PAPER

Summary of Each Agency Interview

(The opportunity to expand or change this information will be provided each agency)

1. Other Agencies

(The other agencies it is appropriate for any one agency to work with; kinds of help needed from other agencies)

NICHD	BEH, MCHS, NIMH
NIMH	NICHD, OCD, MCHS
MCHS	NIMH, NICHD, OCD
SRS	OCD, OEO
OCD	All agencies
OE	Exchange information on testing, curriculum, use of consultants, interaction between preschool and elementary school personnel; all agencies
BEH	NIMH, NICHD, OCD, OEO
Follow Through	OCD, OEO, NCERD. Follow Through needs more health data; needs to know how to understand and use health services of the community
NCERD	OEO, OCD, Follow Through
OEO	OE, BEH, NCERD, Follow Through, SRS, OCD
OASPE	All agencies

2. Basic/Applied

(Links in agency research that could be made with basic (or applied) research)

NICHD	Much NICHD basic research has a practical aspect; studies interventions and techniques for all aspects of child development and growth; mental retardation studies have pragmatic concerns.
MCHS	Translate basic findings of NICHD and NIMH into health and nutrition programs.
Follow Through	Follow Through is a natural setting for testing the theoretical findings of basic research; researchers can see what happens when their findings are applied in the field.

3. Areas *

(Research areas of most concern in the agency which may be suited to study in a joint project - includes gaps)

NICHD	Physical growth, health, nutrition, cognitive and social development and particularly the interrelationships between two or more of these aspects; also mental retardation and abnormal development.
NIMH	Normal, disadvantaged, emotionally maladjusted child; social-emotional, cognitive, language development and their interrelationships; family ecology of development, effect of interpersonal relationships of family; effects of TV; focus on adolescents as future parents, particularly on boys as potential fathers.
MCHS	Nutrition, health delivery systems, evaluation of health programs, health issues in day care, teenage parents.
SRS	Disadvantaged children; vulnerable children-neglected, abused, adopted, foster children; service delivery; teen-age mothers.
OCD	Need more research in physical health and development and the interrelationships between psychological and physical development, and more studies on the effect of social milieu of families, institutions - interactive effects of surrounding environment. Strong areas are in cognitive and psychological development and interventions for disadvantaged and vulnerable children.
OE	Disadvantaged; see BEH, Follow Through, NCERD below
BEH	Handicapped children's early education, comprehensive child care for handicapped, learning disabilities, handicapped disadvantaged children, delivery of services.
Follow Through	Dissemination of data to other researchers and child practitioners; low-income and other children; preschool education and comprehensive child care.

3. Areas (cont.)

NCERD	Regional labs - curriculum development for kindergarten; NPECE - aiming at development and integration of infant, toddler, preschool and early elementary education models; bilingual and intercultural education; individualized and computer-assisted instruction; home-school linkage.
OEO	Parent-infant intervention; cost-benefit analyses of parent-home vs. caretaker-institution programs. Cost-benefit implications of different types of day care. Testing and documenting the process of developing replicable program models and materials.

* Other research areas currently being emphasized in the agencies are listed in the paper, Broad Agency Goals and Agency Research Objectives for FY 1972.

4. Projects*

(Present projects of the agency which might be useful in organizing a coordinated longitudinal/intervention study)

NICHD	Intellectual development of poor children, Heber in Milwaukee; 10 year study of effect of diet on child development in Guatemala.
SRS	Total family stimulation, a longitudinal study starting with infants to prevent intellectual retardation of development in children of poor families.
OCD	ETS study, Lally study, Caldwell study and the Planned Variations study with Follow Through are all longitudinal studies.
OE	Follow Through longitudinal evaluation; National Center for Educational Statistics longitudinal study; Sesame Street study of effects of TV.
BEH	Jordan's St. Louis study; University of Minnesota study, following retarded children of Perinatal study; some of the 70 early education projects; the Deutsch study, joint-funded with NIMH; advocacy centers, joint-funded with NIMH.
Follow Through	Longitudinal evaluation of national Follow Through program, at least 7 years. Longitudinal study of Head Start/Follow Through Planned Variations.
NCERD	DARCEE preschool model; Syracuse open environment model
OEO	Parent and Child Development Centers
NIMH	See projects described in earlier Secretariat papers.

* Previously prepared papers contain more complete listings. See Appendix B.

5. Data

(The agency data presently available that could be useful for planning longitudinal/intervention research)

NIMH	"Tests and Measurements in Child Development - A Handbook", NIMH-funded book containing collection of tests on child development.
Follow Through	The already existing complex data base of Follow Through can be used by the Panel; a variety of data can be collected for the Panel (or any one agency) free of charge; data deals with low-income and other children, and includes parent interview information, classroom observation information, site evaluations, teacher and aide interviews, pupil tests, data on training, and reports on technical, procedural and other substantive issues. Could be used for substantiation of present research or kick-off for new research.
OEO	Demographic data on disadvantaged population. Programs and materials for PCDC's to be tested for replication.

6. Planning

(Possible methods for synthesizing the various agency inputs into a viable intervention/longitudinal research design - conceptualization and planning.)

NICHD — Subgroups of Panel should meet to work out details of research design; Panel members must be involved in planning in order to avoid rejection by agency; after plan is made and objectives clearly stated, send tenative proposals for joint effort for review by each agency.

NIMH — Research design should take into account "critical stages", time points at which changes in the plan might need to be made because of staff, funding or priority changes; cost benefit studies should be conducted to determine feasibility and productivity of different kinds of interventions. Include normative studies in test development in Panel project and contract work out to specialized groups. Investigators themselves must participate in the planning of the actual research.

MCHS — Meetings with agencies with common interests to exchange information (NICHD, NIMH).

SRS — Need work group assigned by the Panel to develop grant or contract guidelines and objectives. Should hire consultants to design plan for joint longitudinal study.

OCD — Planning of design should be contracted out; perhaps a year's planning grant. Panel should specify objectives, preferably by having reports prepared for them, to be reviewed in small groups and then to be considered by Panel as a whole. Plan should include feasibility and replication phases. Need a carefully designed experimental study to be most useful; we should look at the developmental growth curve for different processes and pinpoint optimal points for intervention; interventions should be designed and orchestrated for the most effective impingement at these critical points (we know what these points are from previous research). Such an approach would represent a conceptual breakthrough with real scientific stature and merit. For Panel project: formulate questions clearly and see what information we already have, utilize available data first; then see if ongoing projects can be augmented to collect the data required; if need a new study, take cohorts in 3 year segments to cover wide age range; include longer-range studies only as last resort. Should be relatively small study, which is better for tracking Subjects and for measurement.

Planning (cont.)

OE — Get OE program people together to talk about joint funding and the needs of the various agencies and what they can contribute. Get subgroups of Panel together to talk about objectives and contributions of each.

OEO — Get experts together and dialog about state of the art in preventive intervention. Talk with nonfederal funding sources; develop plans so that better sets of alternative interventions are developed with these sources; investigate the Foundation Library Center for information regarding foundations' research. Have central point of information exchange for agencies to use to optimize planning. Have periodic check points to determine which segments and studies are meeting predetermined objectives; discontinue ineffective ones, start new segments as needed.

7. Structure

(The kind of structure that might be set up to launch and/or maintain an interagency intervention/longitudinal study)

NICHD — Relevant part of Panel project could be written into contract program as RFP. Send it to Panel for review. Funding agency should deal directly with contractor and monitor work; administrative locus for joint effort whould be in one agency, i.e., administration of funds can be located elsewhere after contract review; Panel receive progress reports and review work.

NIMH — Should start small; bring together selected researchers to assist in planning several interacting projects; participants would agree to joint protocol, i.e. following identical procedures. Panel should provide framework for interaction and monitoring and the resources to process and analyze data; the administration may be subcontracted to a private source; another agency should not be the administrator; must have feedback process to handle problems and to review and monitor work, i.e., check points and reports to Panel.

SRS — One agency should be lead agency for administration; Panel committee with rotating membership should do monitoring.

OCD — Panel's role should be to advise, review and monitor, but not to conceptualize. Should have series of formal interagency agreements committing agencies to joint longitudinal research on individual projects (as proposed for Planned Variations study).

OE — Administration of individual components of group effort should be administered by the agency funding that segment; Panel should be responsible for monitoring; Secretariat should provide clearinghouse and liaison. Group effort should not be administered by one member agency; then it is not a group effort.

BEH — Should contract out planning, data collection, administration, and liaison; group of Panel members should monitor, with reviews by the entire Panel.

Structure (cont.)

Follow Through	Make use of Follow Through - already funded ($60 million) ongoing and liked; a well-known example of successful compensatory education.
OEO	Hire a funding manager who lets contracts to multiple sites on a multi-year basis; funding renewable on favorable review.

8. Contributions

(The contribution an agency might make to an intervention/ longitudinal research design in terms of agency strengths, interests, and priorities)

NICHD	NICHD can fund jointly on grants if they fit with agency program; can fund jointly on a contract basis also; five-year contract with renewal contingent on performance is possible.
NIMH	Child mental health is a priority area of expanding interest and agency officially recognizes the importance of longitudinal research; also the agency approves and supports joint funding; therefore, any joint-funded ongoing project making progress, would probably be refunded. Agency wants to take an active role in joint projects studying children.
MCHS	Joint funding would require special in-house consideration.
SRS	Agency has supported longitudinal research in the past; new agency strategy is putting stress on short-term research and older children. Also the only discretionary funds in the agency are in research and development, so they are subject to many demands. However, joint funding could be done if the work fit into the agency's R&D plan and could be sold to the SRS Commissioners for approval.
OCD	Have precedents for joint funding and commitment to the conduct of longitudinal research.
OE	Make use of ongoing studies as much as possible, Follow Through a good example; contract new work as group plan requires. Joint funding no problem, can draw funds from several agencies.
Follow Through	Joint funding presents no problems; no committee review process.
OEO	Supports longitudinal intervention research.

9. Instrumentation
(Suggestions regarding instrumentation for assessment)

NIMH — Panel should fund normative studies on existing child development tests that show greatest promise of effectiveness.

SRS — Use clinical assessment techniques: observations and interviews with parents, teachers, peers, children, others. Must have money to train people for this as well as carry it out. It is expensive in time and personnel.

OCD — The problem of developing measures in the social-emotional domain and for various ethnic groups is primarily a conceptual one. Knowing what questions to ask and how to interpret data are the major difficulties; need trained people for this. There are many techniques for collecting information on small groups. Use cohort studies to cover wider age range in shorter time.

BEH — Use model of National Center of Health Statistics (NIMH) for collecting health data-they use mobile vans with standardized equipment and trained interviewers to collect health data.

APPENDIX B

Interagency Panel Materials Prepared to
Assist in Planning a Joint Research Effort

1. A Preliminary Report on the Present Status and Future Needs in Longitudinal Studies in Early Childhood Research and Demonstration. Lazar, Joyce B., January, 1972.

2. Early Childhood Research and Development Needs, Gaps and Imbalances: Overview. Chapman, Judith, Ph.D., February, 1972.

3. A Working Paper on Intervention/Longitudinal Studies. Grotberg, Edith, Ph.D., February, 1972.

4. Early Childhood Research and Development: Needs and Gaps in Intervention Studies, Within a Longitudinal Framework. Lazar, Joyce B. and Judith Chapman, Ph.D., March, 1972

5. Broad Agency Goals and Agency Research Objectives for FY 1972. Searcy, Ellen, December, 1971.